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Mary Lind

*North Carolina A&T State University*

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# **The Relationship between Trust and Cohesion in Temporary Knowledge Work Teams**

Mary R. Lind North Carolina A&T State University lindm@ncat.edu

## **Abstract**

Knowledge work often involves team work. Increasingly these teams are not face to face but virtual teams. This paper explores the trust/ cohesion relationship in face-to-face and virtual teams. Lisrel modeling is used to examine the proposal that the type of group in which knowledge workers are involved influences the mutual trust of the group which in turn influences the cohesion of the group.

## **Trust vs Cohesion in Virtual vs Face to Face Groups**

Knowledge workers often work in temporary teams (Stehr, 1994) where the group work requires creativity in dealing with unstructured problems (Sivokla, 1996; Schultze, 1999). Many teams function in the traditional face-to-face mode but increasingly knowledge workers are asked to be members of virtual teams. This paper will examine the influence of interpersonal trust on cooperative behavior in these two team contexts (McAllister, 1995; Mayer, Davis, & Schoorman, 1995). While past group research has often focused on group cohesion as the degree of the social integration within a group (O'Reilly, 1989; Seashore, 1954), in this paper trust is also examined within temporary work groups of knowledge workers (Blackler et. al., 1993). A trust instrument (Simons and Peterson, 1998) is used in this exploratory study of trust within these two group contexts.

## **Trust**

Trust has been examined in terms of the mutual confidence that group members are dependable (McAllister, 1995), care for the interests of each other (Cook and Wall, 1980), are competent (Mishra, 1993), act with integrity (Robinson, 1996) and will not put each other at risk (Axelrod, 1984; Bateson, 1988; Zucker, 1987). Thus all these views of trust share the notion that trust is learned by partners who pay attention to their work partners and develop expectations accordingly about their relationships with these work partners. Thus trust is developed through social learning (Bandura, Ross, and Ross, 1961; Bandura, 1969; Mischel, 1968, 1973).

## **Cohesion**

While trust has been used to characterize the mutual confidence of partners with each other in a group, cohesion (O'Reilly, 1989) has been treated as a measure of social integration. Where social integration reflects the degree to which individuals are psychologically linked to others in the group and reflects attraction to the group (O'Reilly, 1989; Katz and Kahn, 1978; Seashore 1954). Terborg, Castore, and DeNinno (1976) have shown that similar attitudes develop over time, and Good and Nelson (1971) have shown that similar attitudes also promote group cohesion. Another factor influencing group cohesion is the demographic similarity of the group (Hoffman, 1985; Tsui and O'Reilly, 1989).

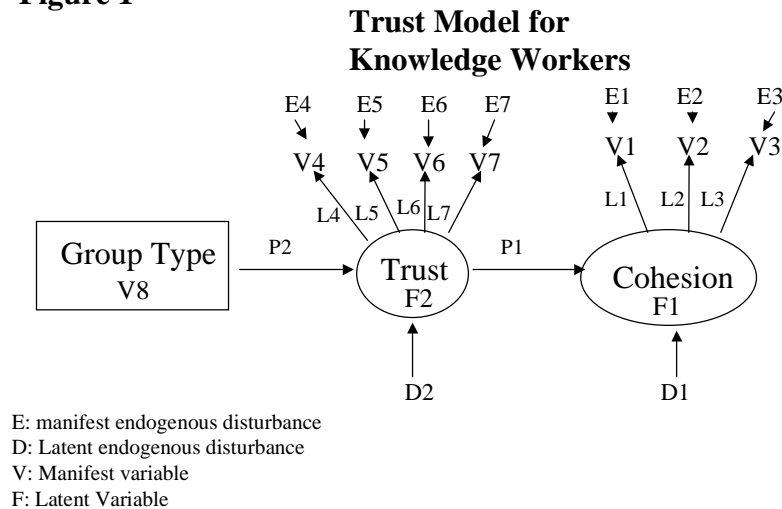
## **Relationship of Trust and Cohesion**

Since trust indicates the mutual confidence that group members have in each other and cohesion indicates the degree to which group members are psychologically linked or connected to each other, it is proposed that these two constructs will be highly related. Specifically it is proposed that mutual trust must be built between group members before the group can be cohesive. The mutual trust between group members then results in the group members interacting with each other to a greater degree. When a high level of group trust exists, the group members will feel more tightly bound and connected into the group activities. Thus group cohesiveness emerges from group trust.

## **Impact of Group Type**

Thus it is proposed that in face-to-face work groups that feelings of mutual trust among group members will result in similar attitudes and result in greater group cohesiveness. The context of virtual groups where the group members interact with each other via electronic media may significantly impact the under development of trust and ultimately result in less cohesion. The virtual groups lacking the richness (Zmud and Lind, 1991) of the face-to-face groups would be expected to develop less trust and thus less cohesiveness.

**Figure 1**



## Research Context

The research context was undergraduate business students in policy and MIS policy courses. There were five universities involved - four in the United States and one in Mexico. The trust items used were from Simons and Peterson (1998). The cohesiveness items were from Seashore (1954).

## Results

The results in Table 1 provided tentative support for the proposed model. Of greatest concern is the sample size which should be larger to assess fit. Additional data are being collected to supplement the sample size. These preliminary results are however promising. The cohesion and trust items load as expected and the path coefficients are as hypothesized. While all of these are significant, the overall model fit lacks significance.

As hypothesized greater group trust leads to more group cohesion. Interestingly the type of group impacts the level of trust and in turn the level of group cohesion. The face-to-face groups responded that their trust level was high which in turn lead to higher cohesion. The virtual groups as expected resulted in lower trust and lower levels of cohesion.

Further work is needed to examine why these relationships exist. Increasing the sample size for this analysis will allow the researchers to address other issues that may impact this model; i.e. gender, free riding, aggression. Another factor that could influence the face-

to-face groups is the fact that students may already be familiar with a group member from a previous class. This research has generated more questions than it has answered. By the time of the conference a larger sample size will be available to test this model and model extensions.

**Table 1**

### Lisrel Modeling with Confirmation Factory Analysis

Lisrel Measure	Result
L1	.93 ***
L2	.84***
L3	.71***
L4	.61***
L5	.67***
L6	.79***
L7	.80***
P1	.90 ***
P2	.98***
GFI	.87
Chi-square	49.32 ****
Df	8
Bentler	.90
Bentler & Bonett Non-normed Index	.74
Bentler and Bonett Normed Index	.89
Sample size	106

\* p < 0.10

\*\* p < 0.05

\*\*\* p < .001

\*\*\*\* p < .0001

## Conclusions

Based on these exploratory results, group trust and group cohesion in temporary knowledge work teams are significantly related and group trust seems to be an important component in building group cohesion. Further work will be done to expand sample size for the purposes of exploring this theoretical model and to be able to incorporate other group factors that could be influencing these results.

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